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23/06/2003

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FILE 'REGISTRY' ENTERED AT 10:51:50 ON 23 JUN 2003

E ALCOHOL/CN
E WATER/CN
E FATTY ALCOHOLS/CN
E ALCOHOL/CN
L1 1 SEA ABB=ON ALCOHOL/CN
E WATER/CN
L2 1 SEA ABB=ON WATER/CN
E FATTY ALCOHOLS/CN
L3 1 SEA ABB=ON "FATTY ALCOHOLS"/CN
E FATTY ETHERS/CN
E FATTY ESTERS/CN
E POLYOLS/CN
E GLYCOLS/CN
E VEGETABLE OIL/CN
L4 1 SEA ABB=ON "VEGETABLE OIL"/CN
E MINERAL OIL/CN
L5 1 SEA ABB=ON "MINERAL OIL"/CN
E LIPOSOMES/CN
E LAMINAR LIPIDS/CN
E SILICONE OILS/CN
L6 5 SEA ABB=ON L1 OR L2 OR L3 OR L4 OR L5
E MINERAL OILS/CN
L7 4 SEA ABB=ON "MINERAL OILS"/CN
L8 8 SEA ABB=ON L6 OR L7

FILE 'HCAPLUS' ENTERED AT 10:56:06 ON 23 JUN 2003

L9 146375 SEA ABB=ON ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR ?COCONUT? OR
?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?APPLE? OR
?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR ?MANGOSTINE? OR
?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR ?TOMATO?
L10 34017 SEA ABB=ON L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR ?FATTY?(W) (?A
LCOHOL? OR ?ETHER? OR ?ESTER?) OR ?POLYOL? OR ?GLYCOL? OR
(?VEGETABLE? OR ?MINERAL? OR ?SILICON?) (W)OIL? OR ?LIPOSOME?
OR ?LAMINAR?(W)?LIPID?)
L11 4945 SEA ABB=ON L10 AND (?COSMETIC? OR ?SKIN? OR ?HAIR? OR ?NAIL?
OR ?LIPS? OR ?DERM? OR ?COLLAGEN? OR ?ELASTIN? OR ?STRESS? OR
?AGING? OR ?GLYCOSAMIN? OR ?CELLULIT? OR ?WRINKLE? OR ?DISCOLOR
?)
L12 1888 SEA ABB=ON L11 AND ((?AEROSOL? OR ?PUMP?) (W)?SPRAY? OR
?CREAM? OR ?DISPERS? OR ?FOAM? OR GEL? OR ?LOTION? OR ?MOUSSE?
OR ?OINTMENT? OR ?POWDER? OR ?PATCH? OR ?POMADE? OR ?SOLUTION?
OR ?STICK? OR ?TOWLETTE?)
L13 0 SEA ABB=ON L12 AND (?UNDIFF?(W) (?CELL? OR ?CULTUR?))
L14 0 SEA ABB=ON L12 AND ?UNDIFF?(W)?CELL?
L15 0 SEA ABB=ON L11 AND ?UNDIFF?(W)?CELL?
L16 1 SEA ABB=ON L10 AND ?UNDIFF?(W)?CELL?

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
11:12:20 ON 23 JUN 2003

FILE 'HCAPLUS' ENTERED AT 11:16:15 ON 23 JUN 2003

L17 17 SEA ABB=ON L10 AND ?CULTURE?(5A)?BROTH?
L18 18 SEA ABB=ON L16 OR L17
L19 2 SEA ABB=ON L12 AND ?CULTURE?(5A)?BROTH?

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT

11:18:09 ON 23 JUN 2003

L20 29 SEA ABB=ON L18

L21 23 DUP REMOV L20 (6 DUPLICATES REMOVED)

=> d que stat 118

L1 1 SEA FILE=REGISTRY ABB=ON ALCOHOL/CN
L2 1 SEA FILE=REGISTRY ABB=ON WATER/CN
L3 1 SEA FILE=REGISTRY ABB=ON "FATTY ALCOHOLS"/CN
L4 1 SEA FILE=REGISTRY ABB=ON "VEGETABLE OIL"/CN
L5 1 SEA FILE=REGISTRY ABB=ON "MINERAL OIL"/CN
L6 5 SEA FILE=REGISTRY ABB=ON L1 OR L2 OR L3 OR L4 OR L5
L7 4 SEA FILE=REGISTRY ABB=ON "MINERAL OILS"/CN
L8 8 SEA FILE=REGISTRY ABB=ON L6 OR L7
L9 146375 SEA FILE=HCAPLUS ABB=ON ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR
?COCONUT? OR ?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?
APPLE? OR ?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR
?MANGOSTINE? OR ?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR
?TOMATO?
L10 34017 SEA FILE=HCAPLUS ABB=ON L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR
?FATTY?(W) (?ALCOHOL? OR ?ETHER? OR ?ESTER?) OR ?POLYOL? OR
?GLYCOL? OR (?VEGETABLE? OR ?MINERAL? OR ?SILICON?) (W)OIL? OR
?LIPOSOME? OR ?LAMINAR?(W)?LIPID?)
L16 1 SEA FILE=HCAPLUS ABB=ON L10 AND ?UNDIFF?(W)?CELL?
L17 17 SEA FILE=HCAPLUS ABB=ON L10 AND ?CULTURE?(5A)?BROTH?
L18 18 SEA FILE=HCAPLUS ABB=ON L16 OR L17

=> d ibib abs hitrn 118 1-18

L18 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:682599 HCAPLUS

DOCUMENT NUMBER: 135:370683

TITLE: Regulation of growth and biosynthetic activity of the medicinal jelly mushroom *Tremella mesenterica* (Retz.: Fr.) Pure culture

AUTHOR(S): Reshetnikov, Sergey V.; Wasser, Solomon P.; Duckman, Ina; Tsukor, Katherina

CORPORATE SOURCE: N. G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Kiev, 252001, Ukraine

SOURCE: International Journal of Medicinal Mushrooms (2001), 3(1), 45-51

CODEN: IMMUFR; ISSN: 1521-9437

PUBLISHER: Begell House, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Different yeast-like budding haploid strains of the yellow brain mushroom *Tremella mesenterica* (Retz.: Fr.) were obtained using the monobasidiosporous culture method from basidioma specimens collected in Israel. Nutritional requirements for biomass growth and extracellular polysaccharide prodn. were investigated. A two-stage technol. for acidic glucuronoxylomannan prodn. was developed. On a first stage inoculum culture medium was balanced for biomass accumulation, and maximal polysaccharide prodn. was obtained on a fermn. medium under conditions of nitrogen limitation. A crude product obtained by alc. pptn. of **culture broth** contains 40% of acidic glucuronoxylomannan, 5% of neutral glucuronoxylomannan, 30% of cell biomass, and also includes low mol. wt. substances, free amino acids, and mineral elements.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:472400 HCAPLUS

DOCUMENT NUMBER: 133:192103

TITLE: Purification and characterization of organic solvent-stable lipase from organic solvent-tolerant *Pseudomonas aeruginosa* LST-03

AUTHOR(S): Ogino, Hiroyasu; Nakagawa, Satoshi; Shinya, Kaori; Muto, Toshiaki; Fujimura, Nobuyuki; Yasuda, Masahiro; Ishikawa, Haruo

CORPORATE SOURCE: Department of Chemical Engineering, Osaka Prefecture University, Osaka, 599-8531, Japan

SOURCE: Journal of Bioscience and Bioengineering (2000), 89(5), 451-457

CODEN: JBBIF6; ISSN: 1389-1723

PUBLISHER: Society for Bioscience and Bioengineering, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An org. solvent-stable lipase (LST-03 lipase) secreted into the **culture broth** of the org. solvent-tolerant *Pseudomonas aeruginosa* LST-03 was purified by ion-exchange and hydrophobic interaction chromatog. in the presence of 2-propanol. The purified enzyme was homogeneous as detd. by SDS-PAGE. The mol. mass of the lipase was estd. to be 27.1 kDa by SDS-PAGE and 36 kDa by gel filtration. The optimum pH and temp. were 6.0 and 37.degree.C. LST-03 lipase was stable at pH 5-8 and below 40.degree.C. Its hydrolytic activity was highest against

tricaproin (C6), Me octanoate (C8), and **coconut** oil resp. among the triacylglycerols, fatty acid Me esters, and natural oils investigated. The enzyme cleaved not only the 1,3-positioned ester bonds, but also the 2-positioned ester bond of triolein. It exhibited high levels of activity in the presence of n-decane, n-octane, DMSO, and DMF as well as in the absence of an org. solvent. In addn., LST-03 lipase was stabler in the presence of n-decane, **ethyleneglycol**, DMSO, n-octane, n-heptane, isooctane, and cyclohexane than in the absence of an org. solvent.

IT 64-17-5, Ethanol, uses

RL: NUU (Other use, unclassified); USES (Uses)

(purifn. and characterization of org. solvent-stable lipase from org. solvent-tolerant *Pseudomonas aeruginosa* LST-03)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:363402 HCAPLUS

DOCUMENT NUMBER: 131:143569

TITLE: Production and properties of the linamarase and amygdalase activities of *Penicillium aurantiogriseum* P35

AUTHOR(S): Petruccioli, Maurizio; Brimer, Leon; Cicalini, Anna Rita; Pulci, Valentina; Federici, Federico

CORPORATE SOURCE: Department of Agrobiolgy and Agrochemistry, University of Tuscia, Viterbo, I-01100, Italy

SOURCE: Bioscience, Biotechnology, and Biochemistry (1999), 63(5), 805-812

CODEN: BBBIEJ; ISSN: 0916-8451

PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of medium compn. on the prodn. of .beta.-glucosidase (amygdalase and linamarase) by *P. aurantiogriseum* P35 were studied and the medium optimized as follows (g/L of deionized **water**): pectin, 10.0; (NH₄)₂SO₄, 8.0; KH₂PO₄, 8.0; Na₂HPO₄, 2.8; MgSO₄.cntdot.7H₂O, 0.5; yeast ext., 4.0; initial pH, 6.0. When grown in a bench fermenter on this medium, the fungus produced 50.5 mU of amygdalase and 9.4 mU of linamarase per mL of **culture broth**. Two .beta.-glucosidasès (PGI and PGII), each having amygdalase and linamarase activities, were recovered from the **culture broth** and purified; their mol. wts., as native enzymes, were estd. to be approx. 247 and 147 kDa, resp. Both enzymes showed the same optimum pH (6.0) but different optimum temps. (55 and 60.degree. for PGI and PGII, resp.). The thermostability (10 min at 60.degree.) and half-life of enzyme activity (7 h at 60.degree.) of PGII were higher than those of PGI (10 min at 50.degree. and 2 h at 55.degree., resp.). A wide range of cyanogenic glycosides (such as tetraphyllin B, epivolkenin, gynocardin, passibiflorin, prunasin, taxiphyllin, amygdalin, **lucumin**, sambunigrin, dhurrin, linamarin and cardiospermin sulfate) were hydrolyzed by both enzymes.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:372161 HCAPLUS

DOCUMENT NUMBER: 129:106670

TITLE: Lectin inhibitor and chitinase of **cucumber**

AUTHOR(S): Kato, J.; Ogihaa, J.; Oishi, K.

CORPORATE SOURCE: Dep. Agric. Biol. Chem., College Bioresource Sci., Nihon Univ., Tokyo, 154-8513, Japan

SOURCE: Kichin, Kitosan Kenkyu (1998), 4(2), 234-235
CODEN: KKKEFB; ISSN: 1340-9778
PUBLISHER: Nippon Kichin, Kitosan Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB The lectin inhibitor obtained from **cucumber** plant and fruit, have chitin like moiety in its mol., decreased the release of reducing sugar from ethylene **glycol** chitin by **cucumber** chitinase. This result suggest the chitin moiety of the lectin inhibitor may act as a chitinase substrate and compete with EGC or as a inhibitor bind to catalytic site of the chitinase. F. oxysporum produce a substance which inhibit **cucumber** lectin activity in the **culture broth** and its inhibitory activity was disappeared by incubation with **cucumber** chitinase was obsd. The chitin like substance "lectin inhibitor" in the plant and generated by F. oxysporum maybe controlled by plant chitinase.

L18 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:305501 HCAPLUS
DOCUMENT NUMBER: 127:4136
TITLE: Enhanced secretion of peroxidase from **carrot** hairy roots using polyethylene **glycol**
AUTHOR(S): Kim, Yong Hwan; Kim, Ji Hyeon; Yoo, Young Je
CORPORATE SOURCE: Department of Chemical Engineering and the Institute of Genetics and Molecular Biology, Seoul National University, Seoul, 151-742, S. Korea
SOURCE: Journal of Fermentation and Bioengineering (1997), 83(4), 397-400
CODEN: JFBIEX; ISSN: 0922-338X
PUBLISHER: Society for Fermentation and Bioengineering, Japan
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Effects of various org. solvents and polyethylene **glycol** (PEG) on the secretion of peroxidase from **carrot** hairy roots were investigated. The peroxidase activity in **culture broth** was significantly enhanced without adverse effects on root growth when PEG was employed while other org. permeabilizing agents exerted harmful effects on root growth. PEG with a mol. wt. of over 6000 g/mol enhanced the secretion of peroxidase dramatically. Since PEG did not induce the formation of pores in the root cell membrane as confirmed by staining using Neutral Red, it was thought that the mechanism of secretion enhancement of peroxidase by PEG is different from that of other org. solvents which make the cell membrane permeable. Since PEG does not adversely affect the root growth, PEG can be applied to the repeated use of root cells for prodn. of peroxidase.

L18 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:319665 HCAPLUS
DOCUMENT NUMBER: 120:319665
TITLE: Accumulation of hydroxyproline-rich glycoprotein in **cucumber** leaves induced by fungal elicitors
AUTHOR(S): Su, Bo; Liu, Yu-Gang; Ouyang, Guang-Cha
CORPORATE SOURCE: Sch. Life Sci., Fudan Univ., Shanghai, 200433, Peop. Rep. China
SOURCE: Zhiwu Shenglixue Tongxun (1993), 29(5), 337-9
CODEN: CHWSAX; ISSN: 0412-0922
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The hydroxyproline-rich glycoprotein (I) in leaf of Cucumis sativus is enhanced with EtOH ext. of **culture broth** of

Colletorichum lagenarium. 2-Chloroethylphosphonic acid also induces the accumulation of I in the leaf of Cucumis sativus. However, CoCl₂ antagonizes the induction of I with the EtOH ext. of **culture broth** of Colletorichum lagenarium.

IT 64-17-5, Ethanol, biological studies

RL: BIOL (Biological study)

(**culture broth** of Colletorichum lagenarium extd.

with, for enhancement of hydroxyproline-rich glycoprotein in **cucumber** leaves)

L18 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:447463 HCAPLUS

DOCUMENT NUMBER: 119:47463

TITLE: Production of thermotolerant .beta.-amylase by Bacillus circulans

AUTHOR(S): Kwan, H. S.; So, K. H.; Chan, K. Y.; Cheng, S. C.

CORPORATE SOURCE: Dep. Biol., Chin. Univ. Hong Kong, Shatin, Hong Kong

SOURCE: World Journal of Microbiology & Biotechnology (1993), 9(1), 50-2

CODEN: WJMBEY; ISSN: 0959-3993

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An isolate from a Hong Kong soil sample which produced .beta.-amylase was identified as a thermotolerant strain of Bacillus circulans with a growth range of 35 to 55.degree.. The .beta.-amylase was stable at 45.degree. for 30 min but lost half of its activity after 30 min at 50.degree.. Max. specific activity of .beta.-amylase (36.2 units/mg protein) in the **culture broth** was detected after 36 h of cultivation at 45.degree. in a medium contg. sol. starch, beef ext., **coconut water** and inorg. salts.

L18 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:164767 HCAPLUS

DOCUMENT NUMBER: 112:164767

TITLE: Breath-freshening dentifrices containing copper gluconate, a fluorine compound, and alkyl sulfates

INVENTOR(S): Ishikawa, Masao; Shibuya, Koji

PATENT ASSIGNEE(S): Lion Corp., Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| EP 321180 | A1 | 19890621 | EP 1988-311769 | 19881213 |
| EP 321180 | B1 | 19920729 | | |
| R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE | | | | |
| JP 01160911 | A2 | 19890623 | JP 1987-319537 | 19871217 |
| JP 2540895 | B2 | 19961009 | | |
| AT 78681 | E | 19920815 | AT 1988-311769 | 19881213 |
| ES 2043856 | T3 | 19940101 | ES 1988-311769 | 19881213 |
| PRIORITY APPLN. INFO.: | | | JP 1987-319537 | 19871217 |
| | | | EP 1988-311769 | 19881213 |

AB An oral compn. comprises an admixt. of Cu gluconate, a F compd., and an alkali metal salt of C8-18 alkyl sulfates, is effective in suppressing mouth odor. The compn. may further comprise bactericides and ext. of Labiatae or Myrtaceae. A soln. (0.5 mL) contg. Cu gluconate 0.005, Na

monofluorophosphate 0.05, and Na lauryl sulfate 0.001% was added to 4.5 mL of a Todd Hewit **broth culture** and 0.1 mL of precultured *Fusobacterium nucleatum* having an optical d. of 1.0 was added; after cultivation of the medium for 2 days at 37.degree., absorbance at 550 nm was 0 compared to 0.75 for the control which used a soln. contg. 0.005% Cu gluconate only. A toothpaste contained Al(OH)₃ 43, glycerin 20, Na CM-cellulose 2, Na lauryl sulfate 2, flavor 1, Na saccharin 0.1, Na N-lauroyl sarcosinate 0.2, Na monofluorophosphate 0.1, Cu gluconate 0.01%, and **water** for the balance.

L18 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1985:610588 HCAPLUS
DOCUMENT NUMBER: 103:210588
TITLE: Diurnal dynamics of extracellular organic acid levels in algal culture media
AUTHOR(S): Sakevich, A. I.; Tsarenko, V. M.
CORPORATE SOURCE: Inst. Hidrobiol., Kiev, USSR
SOURCE: Hidrobiologicheskii Zhurnal (1985), 21(5), 35-9
CODEN: GBZUAM; ISSN: 0375-8990
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Free and bound org. acids (OAs) were found to accumulate in the **culture broth** of *Microcystis aeruginosa*, *Scenedesmus acuminatus*, and *Anabaena variabilis* at certain hours of the day. During daylight, the OAs constituted 80-87% of the total org. matter. During active growth and biomass accumulation, the following OAs were detected: acetate, butyrate, propionate, **glycolate**, citrate, tartrate, succinate, malate, lactate, and .alpha.-ketoglutarate. For *M. aeruginosa*, the concns. of nonvolatile and volatile OAs were 19.8-40.6 and 1.6-12.1 mg/L, resp. The diurnal dynamics of extracellular OAs may be assocd. with variations of the functional activity of the algae and, particularly, by the intensity of reprodn.

L18 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1979:403928 HCAPLUS
DOCUMENT NUMBER: 91:3928
TITLE: Highly viscous polysaccharide
INVENTOR(S): Hirota, Tetsuji; Miyata, Nobuo; Mitsuda, Shinjiro; Kikuchi, Toshihiko
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 54028897 | A2 | 19790303 | JP 1977-95376 | 19770809 |
| JP 59013195 | B4 | 19840328 | | |

PRIORITY APPLN. INFO.: JP 1977-95376 19770809

AB A highly viscous polysaccharide was produced by culturing *Pestalotia* on a liq. medium contg. **tomato** juice or on soybean whey. Thus, *Pestalotia* species No. 101 (FERM-P 4136) was aerobically cultured at 30.degree. for 72 h on 6.5 L of medium (pH 5.5) contg. **tomato** juice 30 and glucose 3%. The **culture broth** was dild. 3-fold with addn. of hot **water** and was then centrifuged. The supernatant was mixed with 2 vols. of Me₂CO to ppt. the polysaccharide. The ppt. was purified by repeating the Me₂CO pptn. to yield 48 g of a

white and highly viscous polysaccharide without taste or odor. The polysaccharide was a .beta.-1,3-glucan [9051-97-2] with a mean polymn. of 300-500 and was highly viscous in aq. solns.

L18 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1979:21463 HCAPLUS
DOCUMENT NUMBER: 90:21463
TITLE: Tissue cultures under boron deficiency
AUTHOR(S): Krosing, M.
CORPORATE SOURCE: Inst. Nutzpflanzenforsch., Tech. Univ. Berlin, Berlin, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Pflanzenernaehrung und Bodenkunde (1978), 141(5), 523-33
CODEN: ZPBOAL; ISSN: 0372-963X
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Cambium tissue from **sunflowers** and **carrots** were cultured in a nutrient soln. with graduated supplies of B. A light-colored and well-growing callus was formed only in the presence of B. Explants on a B-deficient medium agglutinated at the edges, had only small areas of cell division, and revealed deposits on walls of some cells. Deficient tissues also became noticeably darker. Callus grown on a normal medium and then transferred to a B-deficient medium slowed down in growth rate and also turned dark. In contrast to normal calli, the deficient cultures could not be easily sepd. in **water** into individual cells or small cell groups. Moreover, the cells were smaller on the av. and often revealed grainy contents and (in the case of **carrots**) accumulation of plasma at the ends of the cells. A large no. of deficient cells were plasmolyzed. An accumulation of **undifferentiated cells** in the cambium region was particularly striking in dicotyledons under conditions of B deficiency.

L18 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:87911 HCAPLUS
DOCUMENT NUMBER: 86:87911
TITLE: Good flavored and fermented sugar solution
INVENTOR(S): Ogasa, Katsuhiko; Kawashima, Takuji; Shimamura, Seiichi; Miyagawa, Hiroshi; Hori, Yukio; Iwatsuki, Keiji
PATENT ASSIGNEE(S): Morinaga Milk Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 51115965 | A2 | 19761013 | JP 1975-37823 | 19750331 |
| JP 56025306 | B4 | 19810611 | | |

PRIORITY APPLN. INFO.: JP 1975-37823 19750331

AB A *Saccharomyces* was acclimated on a fruit juice and adjusted to 30-40.degree. Brix with addn. of sugar, by culturing for 1-2 days at 30.degree.. The acclimated **culture broth** was added to a sugar soln. of 30-75.degree. Brix in an amt. equiv. to 0.1-0.3 g of the fruit juice and 107-5 .times. 10⁸ yeast cells/g sugar and cultured with stirring at 30-40.degree. for <24 h. Thus, a good flavored and fermented sugar soln. contg. <1% alc. was obtained by removing the yeast cells from the fermented soln. For example, .apprx.1.5 kg fruit juice

medium of 30.degree. Brix was prepd. by mixing a com. concd. Niagara **grape** juice (50.degree. Brix) 300, a com. honey (80.degree. Brix) 380, and **water** 820 g. *S. cerevisiae ellipsoidea* OUT 7896 was acclimated twice to the medium by culturing 24 h at 30.degree.. The acclimated culture contained fruit juice equiv. to 1500 g of the original juice and 1.1 .times. 10⁸ cells/g. The acclimated culture, 800 g, was added to 10 kg honey soln. (50.degree. Brix) and th soln. was fermented with stirring at 37.degree. for 15 h. A clear and amber liq. (pH 3.5) contg. 0.85% **alc.** was obtained in a yield of .apprx.8 kg by centrifugation and filtration of the fermented soln.

L18 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1973:96031 HCAPLUS

DOCUMENT NUMBER: 78:96031

TITLE: Defoamers in industrial microbiological synthesis. IV. Production of a highly effective ester-type defoamer from refining-industry fatty acids

AUTHOR(S): Ivanov, St. A.; Bliznakova, L. T.

CORPORATE SOURCE: Univ. Plovdiv, Plovdiv, Bulg.

SOURCE: Nauchni Trudove - Plovdivski Universitet Paisii Khilendarski (1972), 10(2), 123-6

CODEN: NTPUB6; ISSN: 0369-6227

DOCUMENT TYPE: Journal

LANGUAGE: Bulgarian

AB An ester-type antifoaming agent for use in com. microbiol. synthesis was developed from residues of **vegetable oil** refining. The residues, contg. fatty acids 40-90, and neutral oils 10-60%, are esterified with a tech. grade glycerol. Earlier studies showed that the presence of free fatty acids in amts. exceeding 5% in the defoamer detrimentally affects the growth of *Actinomyces*; and the esterification was carried on until products of acid no. 4 were obtained. The most suitable catalyst was Zn and its sol. salts, since they had a stimulating effect on *Actinomyces*. Particularly effective defoamers were prepd. by esterification at 210-40.degree., under 600-700 mm Hg pressure, at stirring rates of 50-60 rpm, using a 40-50% excess of glycerol based on the fatty acid content of the starting material. The ester products contained triglycerides 20-35, diglycerides 20-40, monoglycerides 20-30, free fatty acids 0.5-2.0, free glycerol 0.8-1.8, nonsaponifiables 1.9-2.5, and moisture 0.1-0.3%. The HLB (hydrophilic-lipophilic balance) value was 2.5-2.6. The products were dark-red in color, d₂₀²⁰ 0.9448-0.9453, n₂₀^D 1.4760-1.4768, acid no. 1.0-4.0, peroxide no. 2.5-2.8 (0.002N Na₂S₂O₃/g), sapon. no. 140-150, ester no. 137-145, hydroxyl no. 62-70, and the foam suppressing effect (in ml defoamer/100 ml **culture broth**) 0.07-0.15. Lab. tests showed that the ester defoamer effect on the growth of *Actinomyces* and the activity of the final product was the same as that of twice the amt. of **sunflower** oil additive.

L18 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:96876 HCAPLUS

DOCUMENT NUMBER: 76:96876

TITLE: Mechanism of parasitism in *Myrothecium roridum*

AUTHOR(S): Pawar, V. H.; Thirumalachar, M. J.

CORPORATE SOURCE: Hindustan Antibiot. Res. Cent., Poona, India

SOURCE: Plant Dis. Probl., Proc. Int. Symp., 1st (1970), Meeting Date 1966-1967, 173-8. Editor(s): Raychaudhuri, S. P. Indian Phytopathol. Soc.: New Delhi, India.

CODEN: 24NRA6

DOCUMENT TYPE: Conference

LANGUAGE: English

AB A **culture broth** of *M. roridum* was filtered at pH 7.4. The active principle in the filtrate was extd. with petroleum ether, ext. concd. to 1/20 vol. and cooled to 0.degree., and a white cryst. phytotoxin sepd. The phytotoxin had a neutral reaction and a 162-164.degree. m.p. Proximate anal.: 66.4% C and 6.8% H. N, S, and halogen were absent. In EtOH it gave absorption peaks at 258-262 m.mu.. The ir absorption spectra showed peaks at 2.88-2.92, 3.37, 5.68, 5.83, 6.10, 7.06, 7.38, 8.55, 9.17, 10.1, 10.3 and 12.2 nm. It was sol. in benzene, EtOAc, ether, acetone, CHCl₃, MeOH, and EtOH. It was insol. in **water** and slightly sol. in petroleum ether. A soln. of this necrocitin caused wilting of **tomato** shoots at a min. concn. of 0.5 .mu.g/ml after 48 hr. At 0.5 .mu.g/ml it was lethal to fresh **water** snails (*Lymnaea luteola f. australis*) in 8 hr.

L18 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1969:39113 HCAPLUS
DOCUMENT NUMBER: 70:39113
TITLE: Bisphenol monophosphinate soap germicides
INVENTOR(S): Jungermann, Eric; Reich, Henry E.
PATENT ASSIGNEE(S): Armour and Co.
SOURCE: S. African, 20 pp.
CODEN: SFXAB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|-------|
| ----- | --- | ----- | ----- | ----- |
| ZA 6704756 | | 19680122 | | |

PRIORITY APPLN. INFO.: US 19660914

AB Certain P-contg. esters are useful as soap germicides, also as synergistic combinations with certain halogenated aromatic primary and secondary amines. The esters can be prepd. by **alcoholysis** of heterocyclic phosphinoyl chloride by using a bisphenol or by partially or completely hydrolyzing such as chloride to a phosphinic acid before reaction with the bisphenol. Thus, a mixt. of a soln. of 19.4 g. KOH in 100 ml. MeOH and a soln. of 142 g. 2,2'-methylenebis(4,5,6-trichlorophenol) in 200 ml. MeOH was heated to 45.degree.. A soln. of 67 g. phosphinoyl chloride (I), prepd. from 2,2,4-trimethyl-2-pentene, in 50 ml. MeOH was added dropwise to the 1st mixt. during 20 min. The mixt. was refluxed for 3 hrs., cooled, filtered, and stripped free of volatiles. The crude tan-colored solid residue was slurried with 100 ml. warm CH₂Cl₂ and filtered to yield 170 g. of white solid, m. 274-5.degree.. This ester, 1000 ppm. in a soln. of neutral white toilet soap contg. 20 wt. % Na **coconut** oil soap and 80 wt. % Na tallow soap, was mixed with measured amts. of liquid nutrient agar. Plates were poured, solidified, and streaked with a standard 4-mm. loopful of a 24-hour **broth culture** of *Staphylococcus aureus* strain F.D.A. No. 209. After incubation for 24 hrs. at 37.degree., the bacteriostatic endpoint was detd., which was 0.7 ppm. with this ester. When I derived from 1-dodecene or from 1-hexene was used, endpoints of 0.5 ppm. resulted.

L18 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:77850 HCAPLUS
DOCUMENT NUMBER: 64:77850
ORIGINAL REFERENCE NO.: 64:14633e-h
TITLE: Necrocitin; a new crystalline antifungal antibiotic and plant toxin
AUTHOR(S): Pawar, V. H.; Deshmukh, P. V.; Thirumalachar, M. J.

CORPORATE SOURCE: Hindustan Antibiotics Ltd., Poona, India
SOURCE: Hindustan Antibiot. Bull. (1965), 8(2), 59-63
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The production of toxin was investigated in liquid cultures of *Myrothecium roridum* on various media using different sources of C and N. Synthetic medium of the following compn. was used for the production of toxin: dextrose 5%, KH_2PO_4 0.1%, ammonium tartrate 0.22%, MgSO_4 0.05%, minor element soln. 0.1% (FeSO_4 0.1 g., CuSO_4 0.015 g., ZnSO_4 0.1 g., MnSO_4 0.01 g., $\text{K}_2\text{MoO}_4 \cdot 5 \text{H}_2\text{O}$ 0.01 g., and H_2O to make 100 ml.). In contrast with submerged agitated growth on rotary shakers, **broth** from static **cultures** showed good antifungal activity in both the mycelium. and filtrate. Of 16 strains isolated from different hosts, the one from *Ficus asperima* showed max. antibiotic activity. A static **broth culture** (10 l.) 18-20 days old was extd. with petroleum ether, washed, and dehydrated. The dried ext. was concnd. in vacuo to .apprx.1/20 vol. and kept overnight at 0.degree. to obtain a white cryst. ppt. which was recrystd. and yielded 200 mg. of the active compd. The active principle in the mycelium was also extd. but was only 20 mg. for 1500 g. of wet mycelium. This active compd. was colorless, cryst. and m. 162-164.degree.. The antibiotic has no activity against bacteria. The min. inhibitory concn. (.gamma./ml.) for the following fungi are: *Trichophyton rubrum* <2.5, *T. mentagrophytes* 5, *Allescheria boydii* 5, *Fusarium oxysporum* 5-10, and *Aspergillus fumigatus* 10-20. A soln. of necrocitin (I) showed wilting of **tomato** shoots at the min. concn. of 0.5 .gamma./ml. after 48 hrs. In 8-9-day-old bean seedlings, atomized with a 10 .gamma./ml. level of I, there was slight **water** -soaking of the leaves within 72 hrs. but no necrosis. With 20 .gamma./ml., there was necrosis and **water** soaking of the leaves after 72 hrs; at >25 .gamma. I/ml., the leaf injury became more pronounced.

L18 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1963:81224 HCAPLUS
DOCUMENT NUMBER: 58:81224
ORIGINAL REFERENCE NO.: 58:13838e-h,13839a-c
TITLE: Biochemistry of microorganisms. III. Curvulic acid, curvin, cursidin, cursalin, succinic acid, and fumaric acid as metabolic products of *Curvularia siddiqui*
AUTHOR(S): Kamal, A.; Qureshi, A. Ali; Khan, M. Ali; Khan, F. Mohd
CORPORATE SOURCE: Pakistan Council Soc. Ind. Res., Lahore
SOURCE: Tetrahedron (1963), 19, 117-22
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB The metabolic soln. (105 l., obtained by removal of mycelium from a **culture broth** of *C. siddiqui*) satd. with $(\text{NH}_4)_2\text{SO}_4$, extd. with EtOAc , the ext. shaken with satd. aq. NaHCO_3 , and the alk. ext. acidified with 50% HCl , satd. with $(\text{NH}_4)_2\text{SO}_4$ and extd. with EtOAc , the mixed acid fraction fractionally crystd. from EtOAc -ligroine gave II, the mother liquor extd. with boiling H_2O and the ext. cooled yielded 2.9 g. fumaric acid, m. 290.degree., heated with PhNH_2 to give $\text{HO}_2\text{CCH}_2\text{CH}(\text{NHPH})\text{CO}_2\text{H}$, m. 211.degree.. The mold *C. siddiqui* was grown on a modified synthetic medium contg. 572.25 g. glucose monohydrate, 43.75 g. NH_4Cl , 53.75 g. KH_2PO_4 , 17.50 g. $\text{NaOAc} \cdot 3\text{H}_2\text{O}$, 0.175 g. $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$, 0.175 g. $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$, 0.0875 g. $\text{MnSO}_4 \cdot 4\text{H}_2\text{O}$, 0.0875 g. $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$, 0.0875 g. $\text{Na}_2\text{-B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$, and 0.0875 g. vitamin B, in 14l. distd. H_2O , supplemented by **carrot** ext. (5 kg. **carrots** boiled 30 min. in 3 l. H_2O at 10 atm. and strained through muslin) and made up to 17.5 l. Flasks

contg. 350 ml. medium were sterilized 30 min., inoculated, and incubated 20 days at 26-8% the mixt. filtered through glass wool, satd. with (NH₄)₂SO₄ and extd. with EtOAc, the ext. concd. and shaken with aq. NaHCO₃, the washed and dried residual org. soln. evapd., and the residue extd. successively with Et₂O and EtOAc gave a dark brown product, recrystd. from alc. to give III and 0.15 g. I. The Et₂O-EtOAc-insol. residue extd. with boiling H₂O, the ext. satd. with (NH₄)₂SO₄ and extd. with EtOAc, the dried ext. evapd. and the cryst. residue fractionally crystd. from hot H₂O gave 3.8 g. curvin (IX), C₁₃H₁₅O₆, m. 123% mol. wt. 261 (Rast), .lambda.max. 280 m.mu. (log .epsilon. 3.2), .lambda.min. 255 m.mu. (log .epsilon. 3.02). Tail fractions from the mother liquor crystd. from H₂O and from EtOAc yielded 0.95 g. cursidin (X), C₁₄H₁₈O₆, m. 117.degree., .lambda.max. 280 m.mu. (log .epsilon. 3.82), .lambda.min. 255 m.mu. (log .epsilon. 3.53). The H₂O-insol., viscous, oily residue distd. in vacuo gave a yellow oil, b_{0.1} 220.degree., crystd. from EtOAc-ligroine to give 1.95 g. cursalin (XI), C₁₃H₁₄O₅, m. 170.degree. (decompn.), .lambda.max. 280 m.mu. (log .epsilon. 3.52), .lambda.min. 250 m.mu. (log .epsilon. 2.97). The aq. NaHCO₃ exts. acidified with dil. HCl and satd. with (NH₄)₂SO₄, extd. with EtOAc and the ext. dil. with ligroine, the decanted soln. treated with C and the filtered soln. evapd. gave 5.5 g. curvulic acid (IV, C₁₂H₁₄O₇, m. 154.degree. (decompn.) (EtOAc-ligroine), pK₈ 4.7, .lambda.max 285 m.mu. (log .epsilon. 3.25), .lambda.min. 275 m.mu. (log .epsilon. 3.05). The mother liquor extd. with boiling Et₂O and the dried ext. evapd. gave 1.05 g. succinic acid (XII), m. 184.degree., and 0.5 g. II, m. 218.degree. (decompn.). The decantation residue distd. at 190.degree./0.1 mm. gave 0.5 g. XII. Color reactions of IX, X, XI, and IV with HNO₃, aq. and alc. FeCl₃, Na₂Fe(CN)₅NO.2H₂O, KI and Br, HCONHOH, 2,6-dichloroquinone chlorimide, 2,6-dichlorophenolindophenol, concd. HNO₃, H₃SO₄ in CHCl₃, and with Br-H₂O were tabulated. IX (0.27 g.) in 20 ml. dry Me₂CO refluxed 16 hrs. on a steam bath with 0.25 g. KI and 2 ml. Mel with addn. of 0.5 ml. Mel at 2 hr. intervals, the solvent evapd. and the residue dild. with H₂O, extd. with Et₂O and the product distd. yielded 0.27g. dimethylcurvin, C₁₅H₂₀O₆, b_{0.1} 160.degree., .lambda.max 270 m.mu. (log .epsilon. 3.47), .lambda.min. 248 m.mu. (log .epsilon. 3.17). IV (0.27 g.) refluxed 4 hrs. in 5 ml. freshly distd. Ac₂O contg. 0.5 g. anhyd. NaOAc and the mixt. poured onto ice gave 0.21 g. acetylcursulic acid, C₁₄H₁₆O₈, m. 201.degree. (decompn.) (EtOAc-ligroine). IV (0.27 g.) in MeOH treated with excess CH₂N₂ in Et₂O 0.22 g. dehydrocurvulic acid (XIII), C₁₂H₁₂O₆, m. 139.degree. (Et₂O-petr. ether), .lambda.max 310 m.mu. (log .epsilon. 3.52), .lambda.min 300 m.mu. (log .epsilon. 2.72). XIII (0.252 g.) in 20 ml. dry Me₂CO contg. 0.2 g. anhyd. K₂CO₃ and 2 ml. Mel refluxed 16 hrs. with addn. of 0.5 ml. Mel every 2 hrs., the solvent removed and the residue dild. with 10 ml. H₂O, extd. with EtOAc and the product (0.2 g.) distd. gave 0.19 g. dimethyldehydrocurvulic acid, C₁₄-H₁₆O₆b_{0.1} 180.degree., .lambda.max 270 m.mu. (log .epsilon. 3.02), .lambda.min. 250 m.mu. (log .epsilon. 2.80).

L18 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1918:904 HCAPLUS

DOCUMENT NUMBER: 12:904

ORIGINAL REFERENCE NO.: 12:162b-f

TITLE: Studies in wound infections. The growth of anaerobic bacilli in fluid media under apparently aerobic conditions

AUTHOR(S): Douglas, S. R.; Fleming, A.; Colebrook, L.

CORPORATE SOURCE: London

SOURCE: Lancet (1917), II, 530-2

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The addition of a small piece of potato to **broth** before sterilization enables **cultures** of anaerobic bacilli commonly found in wounds to proliferate rapidly in the absence of any further procedures to produce anaerobic conditions. Further expts. showed that pieces of **carrot**, cabbage or **grape** were equally efficacious. Flakes of bran were also employed. Up to a certain point the more bran added the more copious and rapid was the growth. Of all the various substances tried, bran seemed to be most efficient in promoting the growth of anaerobic organisms in **broth cultures**. An alk. ext. of bran was tested to see if some foodstuff, such as vitamins, might be given up to the broth, but growth was obtained only in those tubes in which a considerable mass of the solid **alc.** ext. had been placed or an extensive ppt. had been formed. Various porous substances, such as asbestos wool, cotton wool, lint, sponge, charcoal, chalk, cork, sand, cardboard, blotting paper and a rusty nail, were each added to a series of broth tubes which were then autoclaved. The results showed conclusively that any porous inert substance when added to broth renders this medium quite as suitable for the growth of anaerobic bacilli, without any further precautions as regards anaerobic conditions, as the addition of pieces of potato or other vegetable matter. These facts can be most simply explained by assuming that the bacilli lodged in the meshes of the various substances are locally able to produce anaerobic conditions and that the oxygen present in the surrounding broth is removed during the growth of the bacilli entangled in the porous mass. The most convenient substance to use is a small pledget of asbestos wool, as this can be readily sterilized by holding it in the flame of a Bunsen burner until it is red hot. Anaerobic bacilli will grow more rapidly and from a smaller implantation when, in addition to the usual anaerobic conditions, some porous substance such as potato or asbestos wool is added to the culture medium. Cf. C. A. 11, 2093.

=> d que stat 121

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L1      1 SEA FILE=REGISTRY ABB=ON  ALCOHOL/CN
L2      1 SEA FILE=REGISTRY ABB=ON  WATER/CN
L3      1 SEA FILE=REGISTRY ABB=ON  "FATTY ALCOHOLS"/CN
L4      1 SEA FILE=REGISTRY ABB=ON  "VEGETABLE OIL"/CN
L5      1 SEA FILE=REGISTRY ABB=ON  "MINERAL OIL"/CN
L6      5 SEA FILE=REGISTRY ABB=ON  L1 OR L2 OR L3 OR L4 OR L5
L7      4 SEA FILE=REGISTRY ABB=ON  "MINERAL OILS"/CN
L8      8 SEA FILE=REGISTRY ABB=ON  L6 OR L7
L9      146375 SEA FILE=HCAPLUS ABB=ON  ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR
      ?COCONUT? OR ?COCOANUT? OR ?CUMIN? OR ?CARROT? OR ?CUSTARD?(W)?
      APPLE? OR ?CUCUMBER? OR ?FENNEL? OR ?FLAX? OR ?GRAPE? OR
      ?MANGOSTINE? OR ?POMEGRANATE? OR ?PERILLA? OR ?SUNFLOWER? OR
      ?TOMATO?
L10     34017 SEA FILE=HCAPLUS ABB=ON  L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR
      ?FATTY?(W)(?ALCOHOL? OR ?ETHER? OR ?ESTER?) OR ?POLYOL? OR
      ?GLYCOL? OR (?VEGETABLE? OR ?MINERAL? OR ?SILICON?) (W)OIL? OR
      ?LIPOSOME? OR ?LAMINAR?(W)?LIPID?)
L16     1 SEA FILE=HCAPLUS ABB=ON  L10 AND ?UNDIFF?(W)?CELL?
L17     17 SEA FILE=HCAPLUS ABB=ON  L10 AND ?CULTURE?(5A)?BROTH?
L18     18 SEA FILE=HCAPLUS ABB=ON  L16 OR L17
L20     29 SEA L18
L21     23 DUP REMOV L20 (6 DUPLICATES REMOVED)

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=> d ibib abs 121 1-23

L21 ANSWER 1 OF 23 WPIDS (C) 2003 THOMSON DERWENT
 ACCESSION NUMBER: 2003-312987 [30] WPIDS
 DOC. NO. CPI: C2003-082061
 TITLE: Composition useful for treating e.g. bacterial infection
 in plants comprises terpene.
 DERWENT CLASS: A97 C03
 INVENTOR(S): FRANKLIN, L U
 PATENT ASSIGNEE(S): (XIME-N) XIMED GROUP PLC
 COUNTRY COUNT: 101
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|---|------|----------|-----------|----|----|
| WO 2003020024 | A2 | 20030313 | (200330)* | EN | 27 |
| RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU | | | | | |
| MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW | | | | | |
| W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK | | | | | |
| DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR | | | | | |
| KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT | | | | | |
| RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA | | | | | |
| ZM ZW | | | | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|---------------|------|-----------------|----------|
| WO 2003020024 | A2 | WO 2002-US27512 | 20020828 |

PRIORITY APPLN. INFO: US 2002-388057P 20020611; US 2001-315163P
 20010828

AN 2003-312987 [30] WPIDS

AB WO2003020024 A UPAB: 20030513

NOVELTY - A composition or its true solution comprises at least one
 terpene and/or **water**.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for
 preparation of the composition involving forming a mixture of terpene and
water.

ACTIVITY - Plant Antibacterial; Plant Fungicide; Plant Antiviral;
 Plant Protectant.

A phytoplasma treatment was carried out as follows: 12 healthy vines
 were treated with **water** (4 l) (control), citral (500 ppm),
 citral (1000 ppm) and citral (2500 ppm). Weekly observations for 3 weeks
 showed no phytoplasma on any plants treated with citral, indicating a
 minimum 5-fold safety margin.

MECHANISM OF ACTION - Microbial growth inhibitor.

Cell suspension of five **grape** strains (Cayuga, Melody,
 Shiraz, 3SV and Yugo), 2 sycamore strain (SLS-DC and SLS61) and 1 strain
 each of peach (45), plum (26), pecan (4BD2) and oleander (6) were prepared
 by re-suspending cells scraped from a 7-day old agar **culture**
 plate into fresh PW **broth** (3 ml). Cell suspension of each
 strain, was vortexed to ensure even mixing before an aliquot of 0.5 ml was
 dispensed into a sterile tube. One half of each citral solution (prepared
 by dissolving citral in sterile **water** at 500, 250 and 125 ppm as
 terpene solution) (1 ml) was added into each cell suspension tube. The
 final concentration of the terpene was 240, 25, and 62.5 ppm respectively.
 The treated cell suspension was incubated for 24 hours at 30 deg. C before

the color-changing units were determined by a 10 fold serial dilution in fresh PW **broth**. All the **culture** tubes were incubated for 20 days before the final reading was taken. MIC (minimum inhibitory concentration at which no cell survived) was 125 ppm for 4 **grape** strains, 2 sycamore strains and 1 peach strain and 62.5 ppm for strains from **grape**, plum, pecan and oleander.

USE - For the treatment of plants e.g. **grapevines**, stone fruit trees, coffee and ornamental plants infected with bacteria, mycoplasmas/phytoplasmas, fungi (claimed), spiroplasmas, viruses, algae and viroids before or after the onset of disease e.g. Pierce's disease of **grapevine**, sycamore leaf scorch, phony disease of peach, plum leaf scald, pecan leaf scorch, and oleander leaf scorch.

ADVANTAGE - The composition is environmentally friendly and acceptable to consumers.

Dwg.0/4

L21 ANSWER 2 OF 23 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 2001-610604 [70] WPIDS

CROSS REFERENCE: 2001-610470 [55]

DOC. NO. CPI: C2001-182342

TITLE: Novel strain of *Streptomyces melanogenes* designated Y31042 is useful as a biological pesticide particularly against whiteflies which infest commercially important crops.

DERWENT CLASS: C05 D16

INVENTOR(S): KUO, M; LAI, L; SHIANG, M

PATENT ASSIGNEE(S): (BIOT-N) DEV CENT BIOTECHNOLOGY

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|------------|------|----------|-----------|----|----|
| US 6287845 | B1 | 20010911 | (200170)* | | 3 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|------------|-----------|----------------|----------|
| US 6287845 | B1 Div ex | US 2000-571700 | 20000515 |
| | | US 2001-841977 | 20010425 |

PRIORITY APPLN. INFO: US 2000-571700 20000515; US 2001-841977
20010425

AN 2001-610604 [70] WPIDS

CR 2001-610470 [55]

AB US 6287845 B UPAB: 20011129

NOVELTY - A biologically pure culture of *Streptomyces melanogenes* strain Y31042, or its mutant or variant, is new.

DETAILED DESCRIPTION - A biologically pure culture of *Streptomyces melanogenes* strain Y31042, or its mutant or variant, is new. The culture has the characteristics:

(a) a yellowish pink to brown substrate mycelium with grayish aerial mycelium with moderate growth in a culture medium of yeast extract-malt extract agar, oat meal agar or inorganic salt agar;

(b) grows in a culture medium containing D-glucose, D-xylose, D-fructose, L-arabinose, raffinose, D-mannitol or I-inositol; and

(c) is highly virulent to white flies at dilutions of 1:100 to 1:1000 of a **culture broth** of the microorganism to **water**.

An INDEPENDENT CLAIM is also included for controlling a targeted pest comprising applying the novel culture.

ACTIVITY - Pesticide.

No biological data is given.

MECHANISM OF ACTION - None given.

USE - As a biopesticide, particularly against whitefly. Whitefly infests over 500 plant species including the commercially important sweet potato, **tomato**, beans, cotton, **carrot**, cassava, squash, lettuce, pepper, egg plant, **water** melon and **cucumber**. Whitefly also transmits over 70 diseases caused by viruses and microorganisms.

ADVANTAGE - The invention provides a safer and more effective pesticide against whitefly than prior art chemical pesticides.

Dwg.0/0

L21 ANSWER 3 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
1

ACCESSION NUMBER: 2000:361207 BIOSIS

DOCUMENT NUMBER: PREV200000361207

TITLE: Purification and characterization of organic solvent-stable lipase from organic solvent-tolerant *Pseudomonas aeruginosa* LST-03.

AUTHOR(S): Ogino, Hiroyasu (1); Nakagawa, Satoshi; Shinya, Kaori; Muto, Toshiaki; Fujimura, Nobuyuki; Yasuda, Masahiro; Ishikawa, Haruo

CORPORATE SOURCE: (1) Department of Chemical Engineering, Osaka Prefecture University, 1-1 Gakuen-cho, Sakai, Osaka, 599-8531 Japan

SOURCE: Journal of Bioscience and Bioengineering, (May, 2000) Vol. 89, No. 5, pp. 451-457. print.
ISSN: 1389-1723.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

AB An organic solvent-stable lipase (LST-03 lipase) secreted into the **culture broth** of the organic solvent-tolerant *Pseudomonas aeruginosa* LST-03 was purified by ion-exchange and hydrophobic interaction chromatography in the presence of 2-propanol. The purified enzyme was homogeneous as determined by SDS-PAGE. The molecular mass of the lipase was estimated to be 27.1 kDa by SDS-PAGE and 36 kDa by gel filtration. The optimum pH and temperature were 6.0 and 37degreeC. LST-03 lipase was stable at pH 5-8 and below 40degreeC. Its hydrolytic activity was highest against tricaproin (C6), methyl octanoate (C8), and **coconut** oil respectively among the triacylglycerols, fatty acid methyl esters, and natural oils investigated. The enzyme cleaved not only the 1,3-positioned ester bonds, but also the 2-positioned ester bond of triolein. It exhibited high levels of activity in the presence of n-decane, n-octane, DMSO, and DMF as well as in the absence of an organic solvent. In addition, LST-03 lipase was stabler in the presence of n-decane, **ethyleneglycol**, DMSO, n-octane, n-heptane, isooctane, and cyclohexane than in the absence of an organic solvent.

L21 ANSWER 4 OF 23 MEDLINE DUPLICATE 2

ACCESSION NUMBER: 1999309742 MEDLINE

DOCUMENT NUMBER: 99309742 PubMed ID: 10380623

TITLE: Production and properties of the linamarase and amygdalase activities of *Penicillium aurantiogriseum* P35.

AUTHOR: Petruccioli M; Brimer L; Cicalini A R; Pulci V; Federici F

CORPORATE SOURCE: Department of Agrobiolology and Agrochemistry, University of Tuscia, Viterbo, Italy.

SOURCE: BIOSCIENCE, BIOTECHNOLOGY, AND BIOCHEMISTRY, (1999 May) 63

(5) 805-12.
 Journal code: 9205717. ISSN: 0916-8451.
 PUB. COUNTRY: Japan
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199907
 ENTRY DATE: Entered STN: 19990730
 Last Updated on STN: 19990730
 Entered Medline: 19990721

AB The effects of medium composition on the production of beta-glucosidase (amygdalase and linamarase) by *Penicillium aurantiogriseum* P35 were studied and the medium optimized as follows (g/l of deionized **water**): pectin, 10.0; (NH₄)₂SO₄, 8.0; KH₂PO₄, 8.0; Na₂HPO₄, 2.8; MgSO₄·7H₂O, 0.5; yeast extract, 4.0; initial pH 6.0. When grown in a bench fermenter on this medium, the fungus produced 50.5 mU of amygdalase and 9.4 mU of linamarase per ml of **culture broth**. Two beta-glucosidases (PGI and PGII), each having amygdalase and linamarase activities, were recovered from the **culture broth** and purified; their relative molecular weights, as native enzymes, were estimated to be about 247,000 and 147,000, respectively. Both enzymes showed the same optimum pH (6.0) but different optimum temperatures (55 and 60 degrees C for PGI and PGII, respectively). Thermostability (10 min at 60 degrees C) and half-life of enzyme activity (7 hours at 60 degrees C) of PGII were higher than those of PGI (10 min at 50 degrees C and 2 hours at 55 degrees C, respectively). A wide range of cyanogenic glycosides (such as tetraphyllin B, epivolkenin, gynocardin, passibiflorin, prunasin, taxiphyllin, amygdalin, **lucumin**, sambunigrin, dhurrin, linamarin and cardiospermin sulfate) were hydrolyzed by both enzymes.

L21 ANSWER 5 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
 ACCESSION NUMBER: 1998058957 EMBASE
 TITLE: Inhibition of *Listeria monocytogenes* and *Salmonella enteritidis* by combinations of plant oils and derivatives of benzoic acid: The development of synergistic antimicrobial combinations.
 AUTHOR: Fyfe L.; Armstrong F.; Stewart J.
 CORPORATE SOURCE: L. Fyfe, Dept. of Dietetics and Nutrition, Queen Margaret College, Clerwood Terrace, Edinburgh EH12 8TS, United Kingdom
 SOURCE: International Journal of Antimicrobial Agents, (1998) 9/3 (195-199).
 Refs: 19
 ISSN: 0924-8579 CODEN: IAAGEA
 PUBLISHER IDENT.: S 0924-8579(97)00051-4
 COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 004 Microbiology
 030 Pharmacology
 037 Drug Literature Index
 LANGUAGE: English
 SUMMARY LANGUAGE: English

AB This study describes inhibitory properties of combinations of oil of **fennel**, oil of anise or oil of basil with either benzoic acid or methyl-paraben against *Listeria monocytogenes* and *Salmonella enteritidis*. Micro-organisms were **cultured** at 37.degree.C in **broth** and viable counts measured over a 48-h period. *S. enteritidis* was particularly sensitive to inhibition by a combination of oil of anise, **fennel** or basil with methyl-paraben where there was < 10 CFU/ml

after 1 h. *L. monocytogenes* was less sensitive to inhibition by each combination however there was a significant reduction in growth of 4-8 log by combinations of all oils and methyl-paraben at 8, 24 and 48 h. Synergistic inhibition by one or more combinations was evident against each micro-organism:

L21 ANSWER 6 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1998:226719 BIOSIS

DOCUMENT NUMBER: PREV199800226719

TITLE: Enumeration of lactic acid bacteria in foods of plant origin using media based on **cucumber** and pepper juices.

AUTHOR(S): Yamani, Mohammed I. (1)

CORPORATE SOURCE: (1) Dep. Nutr. Food Technol., Fac. Agric., Univ. Jordan, Amman Jordan

SOURCE: Dirasat Agricultural Sciences, (Jan., 1998) Vol. 25, No. 1, pp. 72-81.

ISSN: 1026-3764.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English; Arabic

AB Two media based on **cucumber** and pepper juices were developed for the enumeration of lactic acid bacteria (LAB) in foods of plant origin. **Cucumber** juice agar (CJA) and pepper juice agar (PJA) were prepared by mixing 50 ml agar of a sterile solution (115degreeC/15 min) ml of a bromocresol green solution (0.2% in 50% ethanol), and 2g agar with 100 ml **cucumber** juice or pepper juice. Each juice was prepared by autoclaving (121degreeC/15 min) of a slurry made by blending 2 parts of **cucumber** or pepper pieces with 1 part distilled **water**. CJA and PJA were tested by enumerating of LAB in 50 samples of 5 Jordanian traditional foods of plant origin and 30 brine samples of in-brine fermented vegetables, and in 25 samples of pure LAB **broth cultures**. MRS agar was used as a control. In general, the performance of CJA was comparable to that of MRS agar and both were superior to PJA. Thus, CJA could be used in examining foods of plant origin for LAB, especially when MRS agar is not readily available. The averages of the MRS agar LAB counts of the Jordanian traditional foods, mottabal albathinjan, **tomato** and tehineh salad, hoummos, turmus and shatta were 2.6 X 10⁷, 1.4 X 10⁷, 2.8 X 10⁷, 1.7 X 10⁷, 1.9 X 10⁶ CFU/g, respectively. This high LAB load could play a role in the safety and the spoilage of these foods.

L21 ANSWER 7 OF 23 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1997-239250 [22] WPIDS

DOC. NO. CPI: C1997-077002

TITLE: Culture of microorganisms used in food production - comprises incubating *Lactobacillus casei* subsp. *casei*, *L. brevis*, *L. plantarum*, *L. alimentarius* and *Saccharomyces cerevisiae*.

DERWENT CLASS: D13 D16

PATENT ASSIGNEE(S): (YAMA-I) YAMAKAWA K

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|-----------|----|----|
| JP 09075066 | A | 19970325 | (199722)* | | 8 |
| JP 2731763 | B2 | 19980325 | (199817) | | 7 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|----------------|----------|
| JP 09075066 | A | JP 1995-229922 | 19950907 |
| JP 2731763 | B2 | JP 1995-229922 | 19950907 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|------------|-------------------|-------------|
| JP 2731763 | B2 Previous Publ. | JP 09075066 |

PRIORITY APPLN. INFO: JP 1995-229922 19950907

AN 1997-239250 [22] WPIDS

AB JP 09075066 A UPAB: 19970530

Culture of microorganisms comprises simultaneously incubating *Lactobacillus casei* subsp. *casei*, *Lactobacillus brevis*, *Lactobacillus plantarum*, *Lactobacillus alimentarius* and *Saccharomyces cerevisiae* on a culture medium containing potato, apple, **carrot**, rice, sugar, wheat flour, salt and **water**.

Preferably the rice is polished rice, the sugar is triose, the wheat flour is high-strength flour, the salt is natural salt, and the **water** is natural **water**. The culture medium comprises (in pts. wt.): 45-55 potato, 45-55 apple, 45-55 **carrot**, 35-45 rice, 15-25 sugar, 40-50 wheat flour, 0.1-0.5 salt and 45-55 **water**.

USE/ADVANTAGE - The cluster of microorganisms (microbial flora) can be used in production on foods, e.g. bed of salted rice-bran paste for pickling or dried fish. The bed may be prepared by incubating 300 microbial flora with 3000 rice-bran 100 sugar and 720 **water**, to which NaCl is added in an amount of 13 wt. %, optionally together with red pepper, Japanese pepper, garlic and tangle weed. The pickles made on the bed have good taste which is kept for a long period (e.g. longer than one week at 4-5 deg. C) without yielding sour taste and are not spoiled by mould.

In an example, a mixture of 50 g potato, 50 g apple, 50 g **carrot**, 40 g polished rice and 50 cm³ **water** was applied to a mixer for 40-50 sec. 210 g Triose and 0.1 g natural salt, and one platinum loop each of *Lactobacillus casei* subsp. *casei*, *Lactobacillus brevis*, *Lactobacillus plantarum*, *Lactobacillus alimentarius* and *Saccharomyces cerevisiae* was inoculated. After agitation, the mixture was filtered through a sieve, wheat flour was added, and incubated at pH 5.0-8.0 and 32-35 deg. C for 2- 3 hrs. to yield two-times volume of **culture broth**.
Dwg.0/5

L21 ANSWER 8 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1997:398049 BIOSIS

DOCUMENT NUMBER: PREV199799697252

TITLE: Salmonella contamination associated with bacterial soft rot of fresh fruits and vegetables in the marketplace.

AUTHOR(S): Wells, J. M. (1); Butterfield, J. E.

CORPORATE SOURCE: (1) U.S. Dep. Agric., ARS, Eastern Regional Res. Cent., 600 E. Mermaid Lane, Wyndmoor, PA 19038 USA

SOURCE: Plant Disease, (1997) Vol. 81, No. 8, pp. 867-872.

ISSN: 0191-2917.

DOCUMENT TYPE: Article

LANGUAGE: English

AB Wash **water** from 66% of 401 samples of fresh fruits and vegetables collected in the marketplace and affected by bacterial soft rot were positive for suspected strains of *Salmonella*, i.e., black, hydrogen

sulfide-positive colonies on Salmonella-Shigella agar incubated for 24 h at 37 degree C. By comparison, 30% of 402 healthy samples were positive. Incidence of suspected Salmonella in **broth** enrichment **cultures** was 59% in 533 soft rotted samples and 33% in 781 healthy samples. Thirty percent of 166 representative strains of suspected Salmonella, selected at random from 20 different commodities, were confirmed to be Salmonella by physiological and serological tests. Adjusting incidence values accordingly, Salmonella contamination was potentially present in at least 18 to 20% of soft rotted samples and in 9 to 10% of healthy samples. Wash **water** from 120 paired healthy and soft rotted fruits and vegetables contained an average of 1.0 times 10^{-5} and 3.7 times 10^{-6} CFU/ml, respectively, of suspected Salmonella-a ratio of 1:37. Average concentrations of suspected Salmonella in enrichment cultures of healthy and soft rotted samples were 7.5 times 10^{-7} and 2.7 times 10^{-9} CFU/ml, respectively, also in the ratio of 1:37. Fresh potato, **carrot**, and pepper disks coinoculated with the soft rot bacterium *Erwinia carotovora* and with *Salmonella typhimurium*, and incubated for up to 72 h at room temperature, contained approximately 10 times the concentration of *S. typhimurium* as did disks inoculated with *Salmonella* alone. Disks coinoculated with *Pseudomonas viridiflava* and *S. typhimurium* contained approximately three times the *Salmonella* populations as disks inoculated with *Salmonella* alone.

L21 ANSWER 9 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
3

ACCESSION NUMBER: 1997:318702 BIOSIS
DOCUMENT NUMBER: PREV199799609190
TITLE: Enhanced secretion of peroxidase from **carrot** hairy roots using polyethylene **glycol**.
AUTHOR(S): Kim, Yong Hwan; Kim, Ji Hyeon; Yoo, Young Je (1)
CORPORATE SOURCE: (1) Inst. Genetics and Molecular Biol., Seoul Natl. Univ., Seoul 151-742 South Korea
SOURCE: Journal of Fermentation and Bioengineering, (1997) Vol. 83, No. 4, pp. 397-400.
ISSN: 0922-338X.
DOCUMENT TYPE: Article
LANGUAGE: English

AB Effects of various organic solvents and polyethylene **glycol** (PEG) on the secretion of peroxidase from **carrot** hairy roots were investigated. The peroxidase activity in **culture broth** was significantly enhanced without adverse effects on root growth when PEG was employed while other organic permeabilizing agents exerted harmful effects on root growth. PEG with a molecular weight of over 6,000 g/mol enhanced the secretion of peroxidase dramatically. Since PEG did not induce the formation of pores in the root cell membrane as confirmed by staining using Neutral Red, it was thought that the mechanism of secretion enhancement of peroxidase by PEG is different from that of other organic solvents which make the cell membrane permeable. Since PEG does not adversely affect the root growth, PEG can be applied to the repeated use of root cells for production of peroxidase.

L21 ANSWER 10 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE
4

ACCESSION NUMBER: 1996:22933 BIOSIS
DOCUMENT NUMBER: PREV199698595068
TITLE: Feasibility of the polarographic method for the evaluation of the *Mycobacterium fortuitum* growth in different culture media.
AUTHOR(S): Niero, Rinaldo (1); Malucelli, Maria Ivette Carboni
CORPORATE SOURCE: (1) Dep. Epidemiol., Ecol. Micobacteria, Fac. Sause

SOURCE: Publica, USP 01246-904, Sao Paulo Brazil
Revista de Ciencias Farmaceuticas, (1995) Vol. 16, No. 0,
pp. 147-154.
ISSN: 0101-3793.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English; Portuguese

AB In the present research the feasibility of the polarographic method in the determination of the Mycobacterium fortuitum growth in different **culture** media was assayed. The following **broths** media were tested: Middlebrook's 7H9 (7H9), Long & Seibert's (L&S), Kirchner's (K), Sauton's (S), **coconut water** (CW), glutamate-added **coconut water** (GCW), Proskauer & Beck's (P&B) and the Dubos' serum-modified medium (DM). Polarographic assays of oxygen uptake were carried out by means of a polarography of oxygen electrode (platinum and Ag-AgCl reference electrode) combined with a sensor for temperature and the reaction chamber. Polarographic determinations were carried out around 20, 40, 70, 90 and 100 hours after inoculations, using 0.5 ml of the bacterial growths, being the oxygen uptake expressed in m-mu-MO-2/s/0.5 ml. Results have shown different bacterial growth curves, which were related to the quantity of the oxygen consumption in different lengths of time. DM, 7H9, K, S, P&B, GCW, CW and L&S were, in decreasing order, the media which presented greater outwork. The conclusion was that the polarographic method can be applied for the evaluation of the M. fortuitum growth, being also able to be used as an alternative method for assaying liquid culture media.

L21 ANSWER 11 OF 23 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1994-182611 [22] WPIDS

DOC. NO. CPI: C1994-082776

TITLE: Sepn. of crystalline orange pigments from Monascus
culture broths - by transfer without
dissolution to immiscible vegetable and/or
mineral oil phase.

DERWENT CLASS: D13 D16 G01

INVENTOR(S): ST, MARTIN E J

PATENT ASSIGNEE(S): (UNVO) UOP

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|------------|------|----------|-----------|----|----|
| US 5318902 | A | 19940607 | (199422)* | | 9 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|------------|------|-------------|-------------------------|
| US 5318902 | A | CIP of | US 1988-261805 19881024 |
| | | CIP of | US 1990-547704 19900703 |
| | | | US 1992-948040 19920921 |

PRIORITY APPLN. INFO: US 1988-261805 19881024; US 1990-547704
19900703; US 1992-948040 19920921

AN 1994-182611 [22] WPIDS

AB US 5318902 A UPAB: 19940722

Crystalline, H2O-insol. orange pigments (I) produced by a Monascus sp. in an aq. nutrient medium contg. assimilable C, N and organic sources are isolated as follows: (a) the medium is contacted with an oil (II) (liq.

vegetable and/or mineral oil); and (b) (I) transfer to the oil phase where they are recovered after the phase is sepd. from the aq. layer.

Pref. amt. of oil phase is pref. 0.5-20% esp. 1-10% by wt. of culture medium. Pref. **vegetable oil**-(II) are corn, cottonseed, soybean, safflower, **sunflower**, peanut, sesame, rapeseed and olive oils.

The initial fermentation is pref. effected in the presence of a crystalline-(I) inducer (US 4927760) to induce crystallisation, with the nutrients in the sepd. aq. phase being replenished and the aq. being recycled.

Dwg.0/2

L21 ANSWER 12 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1993:206256 BIOSIS

DOCUMENT NUMBER: PREV199395107481

TITLE: Production of thermotolerant beta-amylase by *Bacillus circulans*.

AUTHOR(S): Kwan, H. S. (1); Kso, K. H.; Chan, K. Y.; Cheng, S. C.

CORPORATE SOURCE: (1) Dep. Biol., Chinese Univ. Hong Kong, Shatin, N.T. Hong Kong

SOURCE: World Journal of Microbiology & Biotechnology, (1993) Vol. 9, No. 1, pp. 50-52.
ISSN: 0959-3993.

DOCUMENT TYPE: Article

LANGUAGE: English

AB An isolate from a Hong Kong soil sample which produced beta-amylase was identified as a thermotolerant strain of *Bacillus circulans* with a growth range of 35 to 55 degree C. The beta-amylase was stable at 45 degree C for 30 min but lost half of its activity after 30 min at 50 degree C. Maximum specific activity of beta-amylase (36.2 units/mg protein) in the **culture broth** was detected after 36 h of cultivation at 45 degree C in a medium containing soluble starch, beef extract, **coconut water** and inorganic salts.

L21 ANSWER 13 OF 23 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1990-366323 [49] WPIDS

DOC. NO. CPI: C1990-159483

TITLE: Methyl ethyl ketone and corresp. **alcohol** prodn.
- by cultivating aliphatic carboxylic acid with e.g. *Penicillium Trichoderma*, *Aspergillus*, *Fusarium*, etc..
D16 E17

DERWENT CLASS: D16 E17

PATENT ASSIGNEE(S): (SHOS) SHOWA SANGYO CO

COUNTRY COUNT: 1

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|-----------|----|----|
| JP 02265495 | A | 19901030 | (199049)* | | 13 |
| JP 2826748 | B2 | 19981118 | (199851) | | 14 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|----------------|----------|
| JP 02265495 | A | JP 1989-211946 | 19890817 |
| JP 2826748 | B2 | JP 1989-211946 | 19890817 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|------------|-------------------|-------------|
| JP 2826748 | B2 Previous Publ. | JP 02265495 |

PRIORITY APPLN. INFO: JP 1988-224594 19880909; JP 1988-320694
19881221; JP 1989-211946 19890817

AN 1990-366323 [49] WPIDS

AB JP 02265495 A UPAB: 19930928

Methyl ketone and/or its corresponding **alcohol**, are prepd. by cultivating microorganism which belongs to the genus fusarium, Hypocrea, Cladosporium, Neosartorya, Hemisporium, Chaetosartorya, Gibberella, Mycosphaerella, Eupenicillium, Mycosphaerella, Nectria, Emericella, Monascus, Syncephalastrum, Podostroma, Hamigera, Trichocoma, **Fennellia**, Preussia, Microascus, Taralomyces, Sclerocleista, Penicillium, or Dichotomomyces, or species Penicillium decumbens, P.pseudocasei, P.urticas, P.crustosum, P.canescens, P.viridicatum, P.camembertii, P.thomii, P.biforme, Trichoderma polysporum, T.Hamatum, Aspergillus wentii, A.terreus, A.tamari, A.oryzae, or A.sojae, and is capable of converting fatty acid or ester of A-CH₂CH₂COOH (wherein A is aliphatic hydrocarbon residue which may contains a C=C double bond) into methyl ketone of ACOCH₃ and/or secondary **alcohol** of ACH(OH)CH₃, on a culture medium containing the fatty acid or its ester or salt to produce the methyl ketone and/or **alcohol**, and recovering the products from the **culture broth**.

0/0

L21 ANSWER 14 OF 23 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 89155101 EMBASE

DOCUMENT NUMBER: 1989155101

TITLE: Isolation, growth characteristics, and long-term storage of fungi cultivated by attine ants.

AUTHOR: Cazin Jr. J.; Wiemer D.F.; Howard J.J.

CORPORATE SOURCE: Department of Microbiology, University of Iowa, Iowa City, IA 52242, United States

SOURCE: Applied and Environmental Microbiology, (1989) 55/6 (1346-1350).

ISSN: 0099-2240 CODEN: AEMIDF

COUNTRY: United States

DOCUMENT TYPE: Journal

FILE SEGMENT: 004 Microbiology
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Seven pure-culture strains of fungi cultivated by attine ants (ant-garden fungi) were isolated from locally maintained leaf-cutting ant colonies. An ant-garden fungus strain obtained from an Atta cephalotes colony, when offered to ants of the colony from which the fungus was isolated, was accepted as their own. Young fungus cultures were harvested and incorporated into the fungus garden, and cultures of intermediate age were used to begin a new fungus garden; old cultures were simply harvested. To facilitate further research on this fungus, growth characteristics of the different isolates were studied under a variety of conditions. They grew better at 24.degree.C than at 30.degree.C, and growth did not occur at an incubation temperature of 37.degree.C. In a **broth culture** medium, growth was enhanced by aeration of the culture and by addition of yeast extract, olive oil, sesame oil, peanut oil, soybean oil, corn oil, **sunflower** oil, cottonseed oil, walnut oil, safflower oil, or **mineral** oil. Glycerol did not noticeably affect growth, but Tween 80 inhibited growth. These fungi were

extremely sensitive to cycloheximide, growth being totally inhibited at cycloheximide concentrations ranging from 0.4 to 4.0 $\mu\text{g/ml}$. To date, the ant-garden fungus isolates have remained viable in long-term **mineral oil**-overlay storage cultures for up to 4 years.

L21 ANSWER 15 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1989:408836 BIOSIS

DOCUMENT NUMBER: BA88:78261

TITLE: RHEOLOGICAL CHARACTERIZATION OF **SUNFLOWER OIL** SOAPSTOCKS.

AUTHOR(S): MELGAR HIRALDO A; GOMEZ HERRERA C; FLORES LUQUE V; GALLEGOS MONTES C

CORPORATE SOURCE: DEP. DE INGENIERIA QUIMICA, FAC. DE QUIMICA, UNIV. DE SEVILLA, C/PROF. GARCIA GONZALEZ S/N, 41012 SEVILLA ESPAGNE , RFCG 89-07.

SOURCE: REV FR CORPS GRAS, (1989) 36 (2), 71-77.

CODEN: RFCGAE. ISSN: 0035-3000.

FILE SEGMENT: BA; OLD

LANGUAGE: French

AB The use of soapstocks from **vegetable oils**, as carbon sources in biotechnological processes, is being considered as a tentative profit of these by-products from the oil refining industry. This possibility depends markedly on the rheological behaviour of the **culture broths** containing the soapstock. The aim of this work is to study the rheological behaviour of two soapstocks from **sunflower** oil, with percentages for soap, triacylglycerols and **water** markedly different. The rheological tests have been carried out principally in oscillatory shear, but the results have been compared with those obtained in steady shear. The experimental results show that the soapstocks studied present viscoelasticity. The shear produces structural breakdown. The variation of the complex viscosity versus the frequency can be described by a mathematical model with high level of significance.

L21 ANSWER 16 OF 23 WPIDS (C) 2003 THOMSON DERWENT

ACCESSION NUMBER: 1988-252274 [36] WPIDS

DOC. NO. CPI: C1988-112448

TITLE: Pectin prepn. from plant tissue - using bacillus microorganism or **culture broth**, etc., gives minimal decomposition of released pectin.

DERWENT CLASS: B04 D13 D16 D21

INVENTOR(S): SAKAI, T

PATENT ASSIGNEE(S): (SAKA-I) SAKAI T

COUNTRY COUNT: 6

PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|------------|----|----|
| GB 2201684 | A | 19880907 | (198836) * | | 26 |
| DE 3806423 | A | 19880908 | (198837) | | |
| JP 63213501 | A | 19880906 | (198841) | | |
| FR 2611367 | A | 19880902 | (198842) | | |
| DK 8800931 | A | 19880829 | (198846) | | |
| US 4835262 | A | 19890530 | (198926) | | 7 |
| GB 2201684 | B | 19900905 | (199036) | | |
| JP 06008322 | B2 | 19940202 | (199408) | | |
| DE 3806423 | C2 | 19970327 | (199717) | | 12 |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|-----------------|----------|
| GB 2201684 | A | GB 1988-4407 | 19880225 |
| DE 3806423 | A | DE 1988-3806423 | 19880229 |
| JP 63213501 | A | JP 1987-46685 | 19870228 |
| FR 2611367 | A | FR 1988-2369 | 19880226 |
| US 4835262 | A | US 1988-160644 | 19880226 |
| JP 06008322 | B2 | JP 1987-46605 | 19870228 |
| DE 3806423 | C2 | DE 1988-3806423 | 19880229 |

FILING DETAILS:

| PATENT NO | KIND | PATENT NO |
|-------------|-------------|-------------|
| JP 06008322 | B2 Based on | JP 63213501 |

PRIORITY APPLN. INFO: JP 1987-46605 19870228

AN 1988-252274 [36] WPIDS

AB GB 2201684 A UPAB: 19930923

Prepn. of pectin comprises releasing pectin from plant tissue contg. pectic substances using a suitable *Bacillus* microorganism, or its **culture broth** or processed material, which liberates the pectin without substantial degradation, and recovering the pectin.

Prefd. microorganisms are: *B. subtilis*, esp. strains IFO 3108, 3134, 3336, 3513, 12112, 12113, 12210, 13719, 13721, 14117 and 14140; *B. amyloliquefaciens*, esp. IFO 14141; *B. cereus*, esp. IFO 3002 and 3132; *B. circulans*, esp. IFO 13632; etc. or their mutants or similar strains. Esp. pref. are *B. subtilis* IFO 12113 or 13719. Pref. the material is citrus fruit peel or segment cover. Also useful are beet pulp, **water** melon or melon peel, stems of **carrot**, burdock, radish, etc.

USE/ADVANTAGE - Pectin is useful in foods, medicines and cosmetics. Yields are good and pectin decomposn. is minimised. Inexpensive plant material or plant waste may be used.

0/2

ABEQ GB 2201684 B UPAB: 19930923

A process for preparing pectin which comprises subjecting a plant tissue containing pectic substances to the action of a microorganism which belongs to the genus *Bacillus* and possesses an activity liberating pectin from a plant tissue but does not substantially possess an activity of decomposing pectin, or a **culture broth** or processed material thereof to liberate pectin from the plant tissue and recovering the pectin.

ABEQ US 4835262 A UPAB: 19930923

Prepn. of pectin comprises treatment of disintegrated plant tissues with a *Bacillus* microorganisms (e.g. *B. substits*, *B. amyloliquefaciens*, *B. cereus*, *B. circulans*, etc.) or culture media used for the propagation of a *Bacillus*; and subsequent separation of pectin.

Pref. starting material is citrus fruit peel. The enzymes from *Bacilli* cleave pectins without degradation of the pectin.

USE - the prods. are polysaccharides for nutrients, medicines and cosmetics.

L21 ANSWER 17 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1989:140786 BIOSIS

DOCUMENT NUMBER: BA87:75439

TITLE: ALLELOPATHIC EFFECT OF COMMON WEEDS ON SOYBEAN GROWTH AND SOYBEAN AND BRADYRHIZOBIUM SYMBIOSIS.

AUTHOR(S): MALLIK M A B; TESFAI K

CORPORATE SOURCE: AGRIC. RES. PROGRAM, LANGSTON UNIV., LANGSTON, OKLA. 73050, USA.

SOURCE: PLANT SOIL, (1988) 112 (2), 177-182.
CODEN: PLSO2. ISSN: 0032-079X.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB **Water** extracts of shoot of common lambsquarters (*Chenopodium album*), yellow nutsedge (*Cyperus esculentus*) and **sunflower** (*Helianthus annuus*) at 1% level significantly reduced soybean seed germination. Soybean seedlings inoculated with **broth culture** of nodule bacterium were grown for 25 days in N-free nutrient solution amended with cold **water** extracts of weed residues at 1 and 2% levels. At both levels extracts from residues of all weeds except that of lambsquarters enhanced growth of soybean. Nodulation was generally stimulated by the extracts of five weeds at 1% level except that of lambsquarters. Extracts from lambsquarters at 2% level completely suppressed and at 1% level reduced nodulation by 60%. Extracts from green foxtail (*Setaria viridis*), Pennsylvania smartweed (*Polygonum pennsylvanicum*) and **sunflower** at 2% level reduced and at 1% level enhanced nodulation. The residues of lambsquarters shoot incorporated with soil at 0.5 and 1% levels caused 85 and 96% reduction respectively in seed germination and those of Pennsylvania smartweed and **sunflower** at 1% reduced seed germination by 40-70% but not at 0.5% level. The residues of foxtail and smartweed at both levels enhanced growth and nodulation. Under similar conditions nutsedge at 1% level stimulated nodulation but not growth. The residues of lambsquarters at both levels were inhibitory to nodulation but stimulated growth at 0.5% level.

L21 ANSWER 18 OF 23 JICST-EPlus COPYRIGHT 2003 JST

ACCESSION NUMBER: 880204517 JICST-EPlus

TITLE: The isolation and identification of lactic acid bacteria from traditional **alcoholic** drink in South East Asia.

AUTHOR: OHHIRA IICHIROH; DARMADJI P; KATAOKA KEI; NAKAE TOSHITAKA

CORPORATE SOURCE: Okayama Univ., Graduate School

SOURCE: Rakuno Kagaku, Shokuhin no Kenkyu (Japanese Journal of Dairy and Food Science), (1988) vol. 37, no. 1, pp. A.1-A.10. Journal Code: F0966A (Tbl. 5, Ref. 16)
CODEN: RKSKD8; ISSN: 0385-0218

PUB. COUNTRY: Japan

DOCUMENT TYPE: Journal; Article

LANGUAGE: Japanese

STATUS: New

AB A research was done to isolate and identify lactic acid bacteria from the traditional **alcoholic** drinks (**coconut** wine and rice wine) which have been fond of drinking in South East Asia. **Coconut** wine is produced from **coconut** juice which has been collected from flower stalk of **coconut** tree (*Phoenix dactylifera*), and fermented in room temperature for a few days. Rice wine is produced using rice (*Oryza sativa indica*), RAGI as a starter for fermented foods in South East Asia and local fresh spring **water**, and the fermentation is done at each of farm houses for about one month at room temperature. Both wines were examined for counting and isolation of lactic acid bacteria in BCP plate count agar and modified ELLIKER **culture broth**. **Coconut** wine contained about 1.1×10^7 /ml of lactic acid bacteria, the strains of which were identified as *Leuconostoc oenos* (1 strain) and *Lactobacillus alimentarius* (2 strains). On the other hand rice wine contained about 2.1×10^6 /ml of lactic acid bacteria, which were identified as *Pediococcus halophilus* and *acidilactici* (3 strains), *Lactobacillus corvatus* (1 strain), *Lactobacillus coryniformis* subsp. *coryniformis* (2 strains) and *Lactobacillus casei* subsp. *casei* (1 strain). (author abst.)

L21 ANSWER 19 OF 23 WPIDS (C) 2003 THOMSON DERWENT
 ACCESSION NUMBER: 1986-262891 [40] WPIDS
 DOC. NO. NON-CPI: N1986-196538
 DOC. NO. CPI: C1986-113904
 TITLE: Prepn. of somatic cell hybrid of rutaceae plant - by
 sub-culturing to give undifferentiated multiplied cell
 and preventing embryo formation.
 DERWENT CLASS: C03 D16 P13
 PATENT ASSIGNEE(S): (FRUI-N) FRUIT TREE RES STAT; (KIKK) KIKKOMAN CORP;
 (NORQ) NORINSHO KK
 COUNTRY COUNT: 3
 PATENT INFORMATION:

| PATENT NO | KIND | DATE | WEEK | LA | PG |
|-------------|------|----------|-----------|----|----|
| JP 61192283 | A | 19860826 | (198640)* | | 6 |
| IL 76634 | A | 19900319 | (199021) | | |
| US 4940836 | A | 19900710 | (199030) | | |
| JP 03020229 | B | 19910318 | (199115) | | |

APPLICATION DETAILS:

| PATENT NO | KIND | APPLICATION | DATE |
|-------------|------|----------------|----------|
| JP 61192283 | A | JP 1985-30611 | 19850220 |
| US 4940836 | A | US 1985-782385 | 19851001 |
| JP 03020229 | B | JP 1985-30611 | 19850220 |

PRIORITY APPLN. INFO: JP 1985-30611 19850220

AN 1986-262891 [40] WPIDS

AB JP 61192283 A UPAB: 19930922

Prepn. of somatic cell hybrid of Rutaceae plant comprises culturing ovule of the Rutaceae plant in a medium not contg. plant hormone to obtain culture cell derived from nucleus; subculturing the culture cell in medium contg. plant hormone to obtain undifferentiated multiplied cells; culturing the cells in medium opt. contg. plant hormone and having different medium components, to obtain the embryo-forming cells; fusing the protoplast derived from this embryo-forming cell with the protoplast derived from culture cell having little or no differentiation ability, which is obtd. by culturing tissue cell or tissue other than ovule, of other Rutaceae plants; and culturing the fused protoplast in medium contg. high concn. of saccharide and not plant hormone to selectively obtain somatic cell hybrid.

Rutaceae plants are orange, **grapefruit**, lemon, etc. Plants hormones are cytokinin, auxin, gibberellin, etc. Subcultivation prevents the embryo formation and gives undifferentiated multiplied cell. The protoplast of the embryo-forming cell can be obtd. by treating the cell with cell wall-decomposing enzyme such as cellulase. Other Rutaceae plants are Bengal quince, mandarin orange, etc., and tissue cell can be obtd. from root, leaf, etc. Fusion is conducted in a liq. contg. Ca ion, **polyethyleneglycol** and mannitol. Fused protoplast is cultured in medium contg. high concn. of saccharide such as sucrose, glucose, etc.

ADVANTAGE - Somatic cell hybrid of Rutaceae plant can be obtd. efficiently.

0/0

ABEQ US 4940836 A UPAB: 19930922

Somatic hybrid plants of the Rutaceae family (RF) are produced by (A) fusing (a) 1st protoplasts of embryonic cells resistant to fusion

treatment, having a high proliferation activity and obtd. by cultivation of **undifferentiated cells** derived from a subculture of cultivated cells originated from the nucellus of a 1st plant of the RF with (b) 2nd protoplasts derived from cultivated cells without differentiation potency and originated from tissue cells or tissues other than the ovules of a 2nd plant of the RFRF. (B) Cultivating the fused cells obtd. in a medium contg. sufficient sucrose for the selective embryogenesis of the fused cells. The 2 RF plants have been selected from different species.

The 1st plant is orange, tangerine, **grapefruit** or lemon and the 2nd plant is trifoliate orange, Troyer citrange, orange, mandarine, **grapefruit** or lemon. The medium contains 0.4-0.6 M sucrose, and also cytokinin, auxin and/or gibberellin.

ADVANTAGE - A selective method for the prodn. of new somatic hybrids of Rutaceae plants. @

L21 ANSWER 20 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1985:227260 BIOSIS

DOCUMENT NUMBER: BA79:7256

TITLE: MOKO DISEASE ATYPICAL SYMPTOMS INDUCED BY AFLUIDAL VARIANTS OF PSEUDOMONAS-SOLANACEARUM IN BANANA MUSA-
ACUMINATA PLANTS.

AUTHOR(S): WOODS A C

CORPORATE SOURCE: PLANT PATHOLOGY DEPARTMENT, VINING C. DUNLAP LABORATORIES, UNITED FRUIT CO., LA LIMA, HONDURAS, CENTRAL AMERICA.

SOURCE: PHYTOPATHOLOGY, (1984) 74 (8), 972-976.

CODEN: PHYTAJ. ISSN: 0031-949X.

FILE SEGMENT: BA; OLD

LANGUAGE: English

AB Isolations were made from 1476 moko-diseased banana plants in Honduras, and the bacteria obtained were classified according to colony morphology. Large fluidal (F) colony types were found in 73% and small fluidal round (SFR) colony types in 10% of the cases. Small afluidal variant (AFV) colony types were associated with either F or SFR colony types in 41% of the cases and occurred alone in 17% of the cases. AFV isolates were morphologically indistinguishable from spontaneous afluidal mutants produced after prolonged still **broth culture** or storage in **water**. When inoculated into potted or mature field plants by methods simulating wound infection during routine cultivation, all 3 colony types incited disease, AFV being the least aggressive. Symptoms typical of moko disease developed in field plants inoculated with F or SFR bacteria. AFV bacteria never caused external symptoms in mature wound-inoculated plants, but suckers arising from the same corms often became stunted and showed discoloration and necrotic areas. Other plants remained symptomless even though invasion by AFV bacteria into corm tissue was evident. Streptomycin-resistant AFV types occurred in 78% of diseased corms from suckers of banana plants inoculated 28 wk previously with a streptomycin-resistant F strain. An average of 18.1% of colony-forming units recovered was of the AFV type. Ten AFV isolates selected from F-inoculated mats were injected into small banana plantlets. All developed wilt and necrosis, although at a reduced rate compared to the F parent. Results suggest that AFV colony types of *P. solanacearum* have a previously unrecognized potential for causing disease in banana plants.

L21 ANSWER 21 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1979:215609 BIOSIS

DOCUMENT NUMBER: BA68:18113

TITLE: TISSUE CULTURE UNDER CONDITIONS OF BORON DEFICIENCY.

AUTHOR(S): KROSING M

CORPORATE SOURCE: WEIMARISCHE STR. 5, 1000 BERLIN 31, W. GER.

SOURCE: Z PFLANZENENERNAEHR BODENKD, (1978) 141 (5), 523-534.
CODEN: ZPBOAL. ISSN: 0044-3263.

FILE SEGMENT: BA; OLD

LANGUAGE: German

AB Cambium tissue from **sunflowers** (*Helianthus annuus*) and **carrots** (*Daucus carota*) were cultured in nutrient solution according to Murashige and Skoog with graduated supplies of B. A light-colored and well developed callus was formed only in the presence of B. Explants on a B-deficient medium agglutinated at the edges had only small areas of cell division and revealed appositions on the walls of some cells. Deficient tissues also became noticeably darker. Callus grown on normal medium and then transferred to B-deficient medium slowed down in growth rate, at the latest after 4 wk, and also turned dark. In contrast to normal calli, the deficient cultures could not be easily separated in **water** into individual cells or small cell groups. Moreover, the cells were smaller on the average and often revealed grainy contents and (in the case of **carrots**) plasma accumulation at the ends of the cells. A large number of deficient cells were plasmolyzed. An accumulation of **undifferentiated cells** in the cambium region is particularly striking in dicotyledons under conditions of B deficiency. If this symptom should be the result of cell division activity, then isolated cambium should react to B deficiency with intensive cell division. Contrary to expectations isolated cambium of **sunflowers** and **carrots** in tissue culture did not reveal accelerated cell division under conditions of B deficiency. These results indicate that the symptoms of "increased cambium growth" in intact dicotyledons is due to a secondary effect of B deficiency.

L21 ANSWER 22 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1978:92294 BIOSIS

DOCUMENT NUMBER: BR15:35794

TITLE: **COCONUT WATER BROTH AND AGAR**
AS MICROBIOLOGICAL CULTURE MEDIA.

AUTHOR(S): FERNANDEZ W L; ALEJAR M S; GONZALES J L

SOURCE: Kalikasan, (1977 (RECD 1978)) 6 (1), 78-79.
CODEN: KPJBAR.

DOCUMENT TYPE: Conference

FILE SEGMENT: BR; OLD

LANGUAGE: Unavailable

L21 ANSWER 23 OF 23 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1977:239911 BIOSIS

DOCUMENT NUMBER: BA64:62275

TITLE: **CULTIVATION CONDITIONS FOR THE MUTANT OF**
ASPERGILLUS-TERRICOLA PRODUCING A PROTEOLYTIC ENZYME.

AUTHOR(S): ARAVINA L A; PONOMAREVA V D; TERESHIN I M; KASATKINA I D;
GREKOVA V K

SOURCE: MIKROBIOLOGIYA, (1976 (RECD 1977)) 45 (5), 770-776.
CODEN: MIKBA5. ISSN: 0026-3656.

FILE SEGMENT: BA; OLD

LANGUAGE: Unavailable

AB The effect of temperature, aeration and various foam suppressors on the growth of a mutant of *A. terricola* H-20 and on its production of proteolytic enzymes was studied. A high level of the proteolytic activity (12-15 PU[proteolytic activity unit]/ml) was found at 28.degree.-30.degree. C, with the rate of O2 dissolution being 0.38-0.86 g/per h. Enzyme synthesis was inhibited by a decrease in the temperature to 22.degree.-24.degree. C, a surplus (1.07 g O2/h) or insufficinet (0.18 g O2/h) O2 content in the medium, and by adding animal (spermwhale) fat to the medium as a froth breaker. The best rate of protease biosynthesis was

obtained with stepwise addition of **sunflower** oil to the **culture broth**. The best synthetic froth breakers for the proteolytic enzyme biosynthesis were LG-109 at a concentration of 0.1-1% and polymethylsiloxane PMS-A 154 as a **water** emulsifier at a concentration of 0.5% of the medium.

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(FILE 'HOME' ENTERED AT 10:51:23 ON 23 JUN 2003)

FILE 'HCAPLUS' ENTERED AT 10:51:36 ON 23 JUN 2003

FILE 'REGISTRY' ENTERED AT 10:51:50 ON 23 JUN 2003

| | |
|----|--------------------------------|
| | E ALCOHOL/CN |
| | E WATER/CN |
| | E FATTY ALCOHOLS/CN |
| | E ALCOHOL/CN |
| L1 | 1 S E3 |
| | E WATER/CN |
| L2 | 1 S E3 |
| | E FATTY ALCOHOLS/CN |
| L3 | 1 S E3 |
| | E FATTY ETHERS/CN |
| | E FATTY ESTERS/CN |
| | E POLYOLS/CN |
| | E GLYCOLS/CN |
| | E VEGETABLE OIL/CN |
| L4 | 1 S E3 |
| | E MINERAL OIL/CN |
| L5 | 1 S E3 |
| | E LIPOSOMES/CN |
| | E LAMINAR LIPIDS/CN |
| | E SILICONE OILS/CN |
| L6 | 5 S L1 OR L2 OR L3 OR L4 OR L5 |
| | E MINERAL OILS/CN |
| L7 | 4 S E3 |
| L8 | 8 S L6 OR L7 |

FILE 'HCAPLUS' ENTERED AT 10:56:06 ON 23 JUN 2003

| | |
|-----|--|
| L9 | 146375 S ?AJUGA?(W)?REPTANS? OR ?CARAWAY? OR ?COCONUT? OR ?COCOANUT? O |
| L10 | 34017 S L9 AND (L8 OR ?WATER? OR ?ALCOHOL? OR ?FATTY?(W) (?ALCOHOL? OR |
| L11 | 4945 S L10 AND (?COSMETIC? OR ?SKIN? OR ?HAIR? OR ?NAIL? OR ?LIPS? O |
| L12 | 1888 S L11 AND ((?AEROSOL? OR ?PUMP?) (W)?SPRAY? OR ?CREAM? OR ?DISPE |
| L13 | 0 S L12 AND (?UNDIFF?(W) (?CELL? OR ?CULTUR?)) |
| L14 | 0 S L12 AND ?UNDIFF?(W)?CELL? |
| L15 | 0 S L11 AND ?UNDIFF?(W)?CELL? |
| L16 | 1 S L10 AND ?UNDIFF?(W)?CELL? |

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT 11:12:20 ON 23 JUN 2003

FILE 'HCAPLUS' ENTERED AT 11:16:15 ON 23 JUN 2003

| | |
|-----|-----------------------------------|
| L17 | 17 S L10 AND ?CULTURE?(5A)?BROTH? |
| L18 | 18 S L16 OR L17 |
| L19 | 2 S L12 AND ?CULTURE?(5A)?BROTH? |

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT 11:18:09 ON 23 JUN 2003

| | |
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| L20 | 29 S L18 |
| L21 | 23 DUP REMOV L20 (6 DUPLICATES REMOVED) |

FILE 'HCAPLUS' ENTERED AT 11:28:05 ON 23 JUN 2003

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT 11:29:25 ON 23 JUN 2003